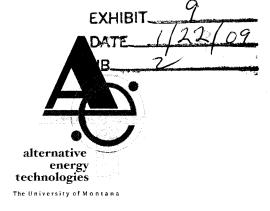
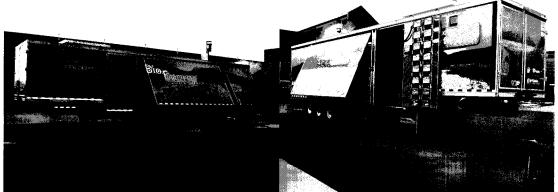
The University of Montana Missoula, Montana



AET is making excellent progress in our biomass research as a result of a three year grant that USDA awarded the University of Montana. The USDA grant provided funds for a mobile biomass unit that was delivered to the University in the spring of 2008. The unit is a custom, portable, semi-trailer mounted, power generation system designed to be used in remote locations such as forests and fields where excess waste materials are traditionally either burned or buried. Through an almost complete gasification of waste feedstock, the unit uses cellulosic materials to produce combined electricity and heat. The process meets the most stringent air regulation standards producing only slight amounts of pollutants.

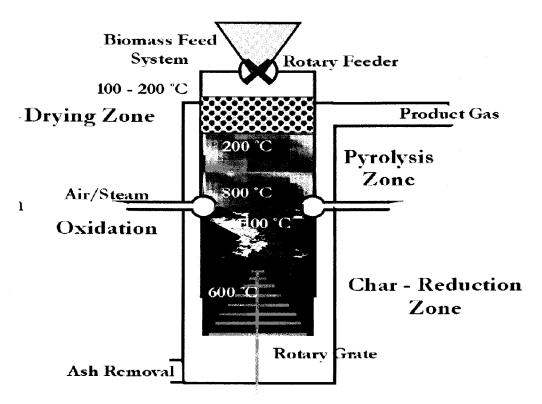




The mobile biomass unit produces 200,000 Btu/h heat running on 50 lbs/hr of wood chips and/or other biomass feedstock. The gasifier produces 1,750 scf/h producer gas which is used to power a V6, 4.31ci GM internal combustion engine propelling a 25kW generator. Due to its efficient use of heat and materials, the systems has a very impressive 70% overall efficiency rating.

The specially designed biomass unit is equipped with computerized controls and widescreen read out and advance process controller. It is scaleable from 5-100 kW. The first feedstock that the University of Montana is presently testing is wood chips available from many wooded sources. Thus far, performance of the unit using this feedstock has been good meeting output and efficiency expectations. Further research and testing on this and other feed stocks is needed to gain data on processing, procedures and efficiencies.

Great interest has already been generated through the outreach demonstrations where the biomass unit has been used in both stand-alone environments and where it has been used to power various events. Businessmen have quickly realized the value of such an environmentally friendly energy system and the economic improvements it could bring to their operations in the woods, logging home industry and distributive energy production environments.



As AET works with students, farmers, ranchers, businessmen, legislators, teachers, congressmen, and others, we are finding wide acceptance of the University's approach and feel that we can accomplish even more goals of the USDA and the University by spring-boarding from our present successes.

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